

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A method of producing a polyamide nanocomposite from a partially crystalline polyamide and an organically modified layered silicate, said polyamide being processed as a first part and a second part in a single extrusion procedure in a double screw extruder having an intake,

wherein the method comprises the following steps:

(a) dosing said a-first part of the polyamides is dosed polyamide as a granulate into the extruder intake and melted melting said first part of the polyamide in the extruder,

(b) dosing into and mixing the organically modified layered silicate is dosed into with the melt of step (a) the first part of the polyamide and admixed therewith, in a mixture ratio in the range of 60 to 80 wt.% of polyamide and 40 to 20 wt.% of layered silicate,

(c) adding said a-second part of the polyamide is added to the melt mixture of step (c) in the double screw extruder via a side feeder or through dripping in the extruder to set the final concentration of the organically modified layered

silicate at no greater than 10 % in the melt of the polyamide nanocomposite, and

(d) subjecting the resulting melt ~~is subjected of the~~  
polyamide nanocomposite to filtration, and  
wherein all of said steps (a)-(d) are carried out in a  
the single extrusion procedure in said double screw extruder.

2. **(Original)** The method according to Claim 1,  
characterized in that the filtration of the melt is  
performed directly before the extruder nozzle.

3. **(Cancelled)**

4. **(Previously presented)** The method according to  
Claim 1,  
characterized in that wire filters having a mesh width  
of at most 200  $\mu\text{m}$  are used to perform the melt filtration.

5. **(Previously presented)** The method according to  
Claim 4,  
characterized in that wire filters having a mesh width  
between 50  $\mu\text{m}$  and 100  $\mu\text{m}$  are used to perform the melt filtration.

6. **(Currently amended)** The method according to Claim 1,

characterized in that, with the addition of the organically modified layered silicate, a mixture ratio of 70 weight-percent of polyamides-polyamide and 30 weight-percent of layered silicates-silicate is produced and the second part of the polyamides-polyamide is added to the mixture in the quantity necessary in order to achieve the final concentration of 2.5 to 6 weight-percent of the layered silicates-silicate in the melt of the polyamide nanocomposite.

7. **(Currently amended)** The method according to Claim 1,

characterized in that the layered silicates are silicate is organically modified using phosphonium salts of the formula P-R<sub>4</sub>-X, R<sub>4</sub> representing three alkyl or aryl residues and X being a Cl, Br, or I.

8. **(Currently amended)** The method according to Claim 1,

characterized in that the organically modified layered silicates are silicate is exfoliated and have and has an ultrafine grain having an average particle size in at least one dimension of at most 100 nm.

9. **(Currently amended)** The method according to Claim 1,

characterized in that the ~~polyamides are~~polyamide is selected from the group consisting of homopolyamides PA 6, PA 66, PA 46, PA 11 and PA 12.

10. **(Currently amended)** The method according to Claim 1,

characterized in that the partially crystalline ~~polyamides are~~polyamide is admixed with a component of amorphous polyamide.

11. **(Currently amended)** The method according to Claim 1,

characterized in that the organically modified layered ~~silicates includes~~silicate includes phyllosilicates of the three-layer type (2:1).

12. **(Withdrawn)** An injection-molded part, which is produced using a polyamide nanocomposite obtained according to the method according to Claim 1,

characterized in that it has a surface which has an average roughness value ( $R_a$ ) of less than 0.05  $\mu\text{m}$  and/or has an average roughness depth ( $R_z$ ) of less than 4  $\mu\text{m}$ .

13. **(Withdrawn)** The injection-molded part according to Claim 12,

characterized in that it includes a smooth surface having a high gloss produced by a molding tool polished to a high gloss.

14. **(Withdrawn)** A reflector for vehicle driving illuminators,

characterized in that it includes an injection molded part according to Claim 12 and is metallized directly.

15. **(Withdrawn)** A reflector for signal or street lights and/or a sub-reflector for vehicle driving illuminators,

characterized in that it includes an injection molded part according to Claim 12 and is metallized directly.

16. **(Withdrawn)** The reflector according to Claim 14, characterized in that the metal coating is applied through PVD methods.

17. (Currently amended) A method of manufacturing a reflector, using a polyamide nanocomposite molding compound produced according to Claim 1, comprising injection molding said the polyamide nanocomposite of claim 1 as a molding compound into a reflector for vehicle driving illuminators.

18. (Currently amended) A method of manufacturing a reflector, using a polyamide nanocomposite molding compound produced according to Claim 1, comprising injection molding said the polyamide nanocomposite of claim 1 as a molding compound into a reflector for signal or street lights or into a sub-reflector for vehicle driving illuminators.

19. (Previously presented) The method of Claim 17, characterized in that a gas injection molding technique is used during injection molding.

20. (Withdrawn) The reflector according to Claim 15, characterized in that the metal coating is applied through PVD methods.